COMET CATCHER

OPERATION MANUAL

Bob's Space Racers®

⚠ WARNING

Be sure to read this Operation Manual before using your machine to ensure safe operation.

IN ASSOCIATION WITH:

UNIS

Universal Space Amusement Equipment Ltd.

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DECEMBER 2008

COMET CATCHER™ ARCADE

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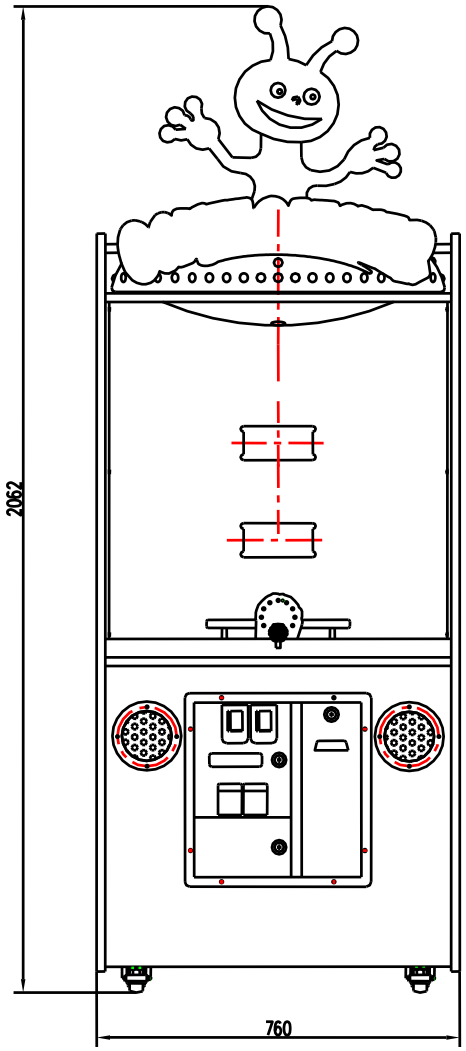
1. SPECIFICATION

(1) Rated power supply: 110VAC ±5%, 60 Hz, 220VAC±5%, 50 Hz
(Note: As for the actual voltage, please refer to the label on the game).
(2) Power consumption: Minimum 125W (1.14 Amps), Maximum 250W (2.27 Amps)
(3) Dimensions: 29.92W x 40.16D X 81.18H inches, (760W×1020D×2062H mm)
(4) Weight: About 297 lbs, 135 kg
(5) Environment Condition: A. Temperature (Indoor): 14.0 F 104.0 F,
-10C +40C
B. Humidity =90%
C. Atmospheric pressure 25.40 Inches of Mercury
(inHg) to 31.30inHg
86 K Pa to 106 K Pa



NOTE: Game parameters are subject change without notice.

2. INTRODUCTION

2-1. Overview:

Thank you for purchasing the new COMET CATCHER™ from Bob's Space Racers®. Built on a long tradition of value, the new COMET CATCHER™ retains all of the great game play you have come to expect from a game from BSR and is specifically designed for today's Arcade environment. The new game uses technology specifically developed for this application.

2-2. Important Safety Information:

IMPORTANT SAFETY INFORMATION

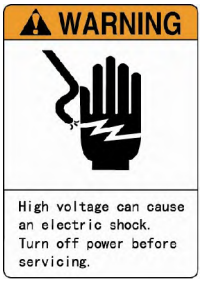
WARNING: Unplug the game from the AC wall receptacle when servicing this product. Failure to do so could result in serious injury to yourself or others.

Use only a GROUNDED AC receptacle. Failure to do so could result in improper operation or damage to the game and could void your warranty. If you are unsure that your AC receptacle is properly grounded, have a qualified electrician perform this check for you.

Always be sure power to the game is turned off when doing even routine maintenance. Otherwise, moving parts could activate unexpectedly causing injury.

This product is heavy, necessitated by the design. When moving this game, be sure you have adequate help. Use a suitable dolly or hand truck where practical. Use back support when needed.

Depending on the potentially hazardous degrees, the terms of NOTICE, WARNING CAUTION, etc. are used. Be sure to understand the content of the displays before reading the text.



High Voltage Warning:

High voltage can cause an electric shock.
Turn off power before servicing

No Touching Warning:
This part may cause an electric shock or the surface is overheating. Do not touch this part.

NOTE: ONLY QUALIFIED TECHNICAL PERSONNEL SHOULD WORK ON THIS GAME. FAILING TO COMPLY CAN CAUSE SEVERE INJURY.

SET UP

There is very little to do in the way of set-up in the game.

1. Be sure that the game is on a level surface. If the game is rocking on the floor adjust the legs to remove the rocking of the game.

2. Be sure to plug the game into the proper A.C. GROUNDED receptacle. Do not use long extension cords unless absolutely necessary and if so, be sure it is a heavy duty cord of at least 16 Ga. and no longer than 20 ft. Check the label on the back of the game to make sure the power requirements of the game match that of your location.

3. Turn the game on and check to be sure there are no unusual sounds and that everything appears to be working correctly.

MAINTENANCE

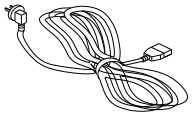
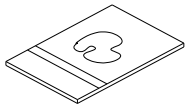
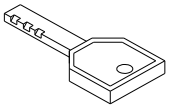
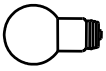
Due to the design of the machine, very little periodic maintenance is required.

CLEANING - Clean the outer surfaces of the game with a commercial spray type cleaner. DO NOT however, use glass cleaner or commercial sprays on the marquee graphic panel. Use a good quality spray type furniture polish to keep the game looking good.

Vacuum the inside of the game occasionally to help keep the dust and ticket debris off of all the optical sensors.

3. PACKAGE CONTENTS

Be sure to check that you have received all packages indicated below.
(1)Body Assembly: 1 unit
(2)Accessories:

NO	NAME	SPECIFICATION	QTY	ILLUSTRATION	NOTE	PART #
1	Power wire	10A/250V, 6.56 feet, 2m	1			
2	Fuse	10A/110V, F 5-20 mm (220V/5A)	2			
3	Manual	English	1			
4	Keys	171	4		Service door	
		2222	2		Coin door	
5	Hexagonal socket flat head screw	M4×20	4			
6	Hexagonal socket flat head screw	M6×35	2			
7	Micro switch Steel wire		1			
8	Flange Nut	M4	2	*(Used in Ball Funnel)*		
9	Bulbs	12V 3W	1			
11	Ball	f 40	20			
12	Cross head flat screw	M4×20	2			

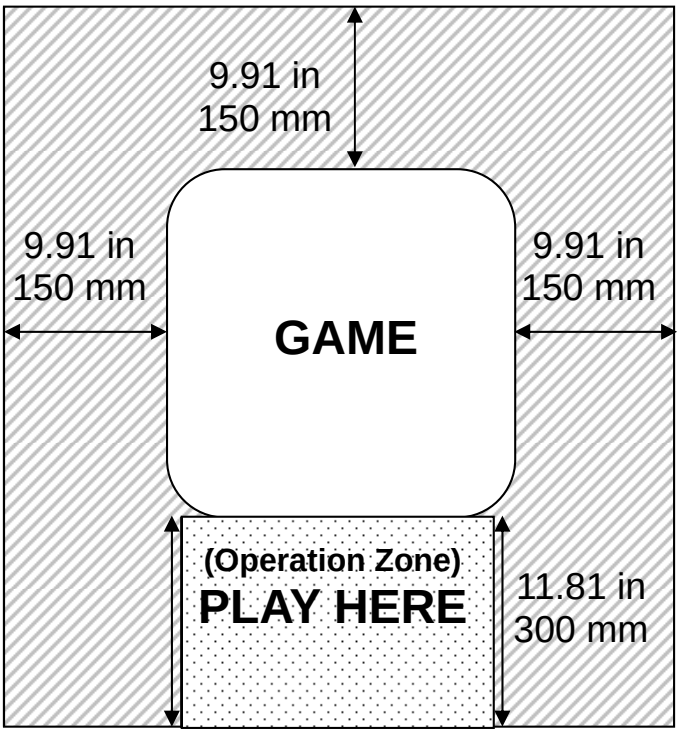
4. INSTALLATION

⚠ ATTENTION

●Recommended for indoor use only!

4-1. Play zone:

This machine requires space for playing the game and for the maintenance as shown below. Be sure to leave enough space when installing the machine.



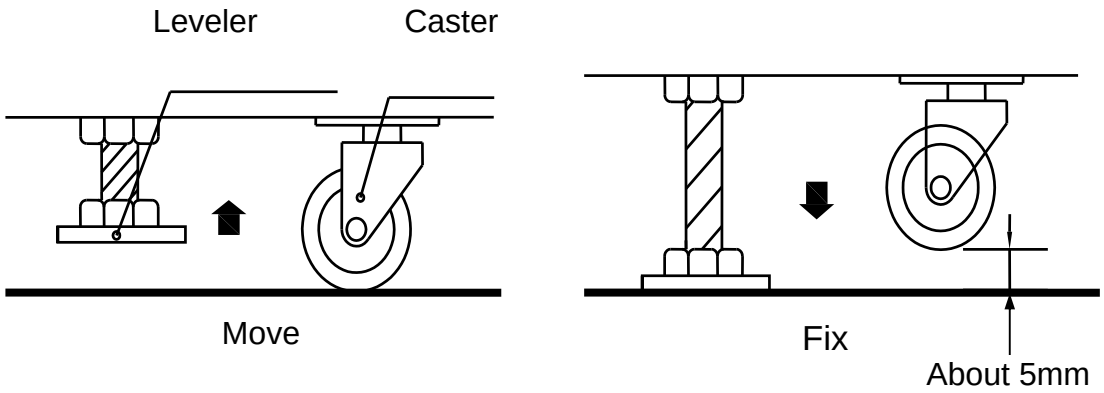
4-2. Locations to avoid installing:

⚠ WARNING

- Location where moisture will develop, due to temperature changes.
- Locations close to hazardous material.
- Locations close to a heating instrument.
- Close to machinery that may easily catch fire.
- Unstable or vibrating places
- Damp or dusty locations

4-3. Game leveling:

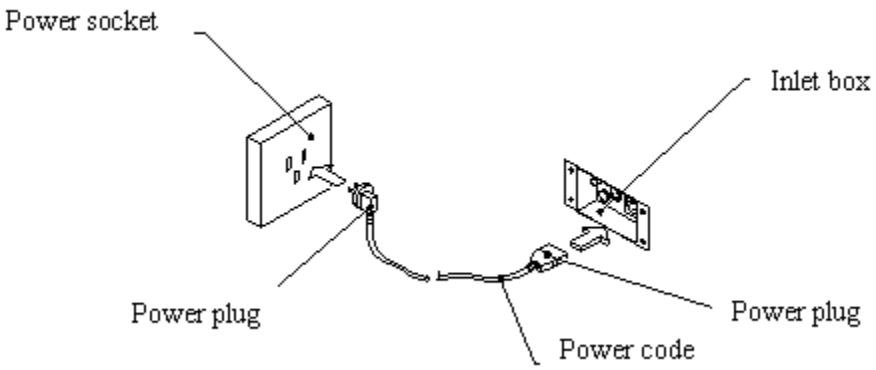
Install this game on a flat surface. Adjust levelers to lift casters off the ground and level game. Make sure that the machine is level with the floor. If the machine is not level medals may not be play well.



⚠ WARNING

- Disconnect game power before moving
- When moving the game, use the casters provided, and DO NOT slide the game across the floor
- Adjust casters when reinstalling the game
- Ensure the game is level before connecting the power

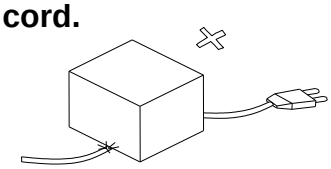
5. CONNECTING THE POWER CORD



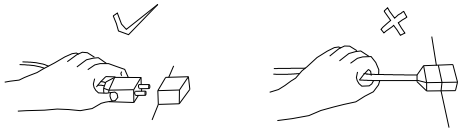
1. Insert the socket end of power cord into the power input of the game.
2. Insert the power cord plug into a service outlet.

⚠ **WARNING**

- **Do not put heavy items on power cord.**



- **Hold the power plug instead of the wire to draw the power cord out of the socket.**



- **Do not touch the power plug with a wet hands.**

- **Do not draw or twist the cord or near a heat source.**

- **Do not place the cord where the player can easily trip over or come in contact with it.**

- **Operate this game with the correct power and fuse configuration.** *(The machine's supply voltage is **110VAC**, please refer the label of the machine connect the actual supply voltage. if not, they can cause an electric shock.)*

6. INSTRUCTION FOR PLAY

1. Insert coin(s), the game starts.

2. The player must move the handle left and right to play.

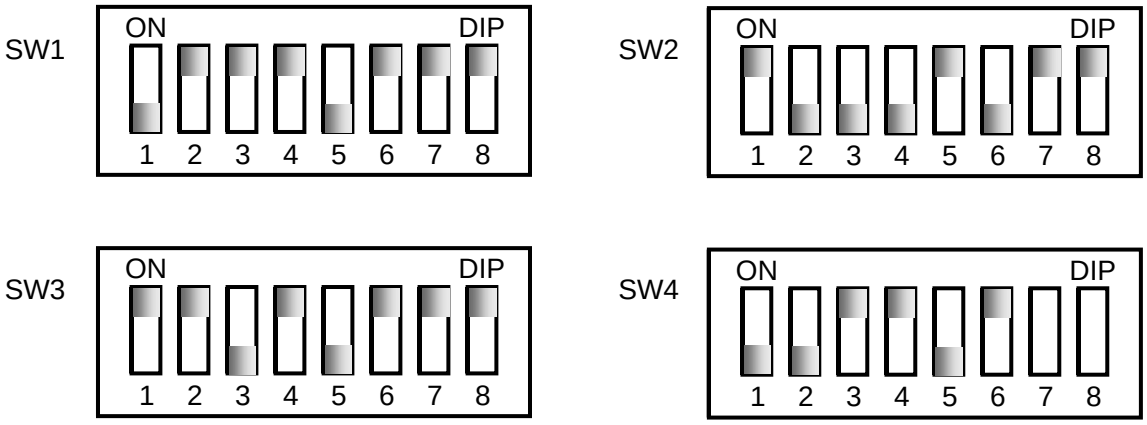
3. Catch as many balls in the net as possible before time runs out. Your score will display on the Score LED.

4. The more you catch the more you win.

5. Beat the best score to win the jackpot bonus.

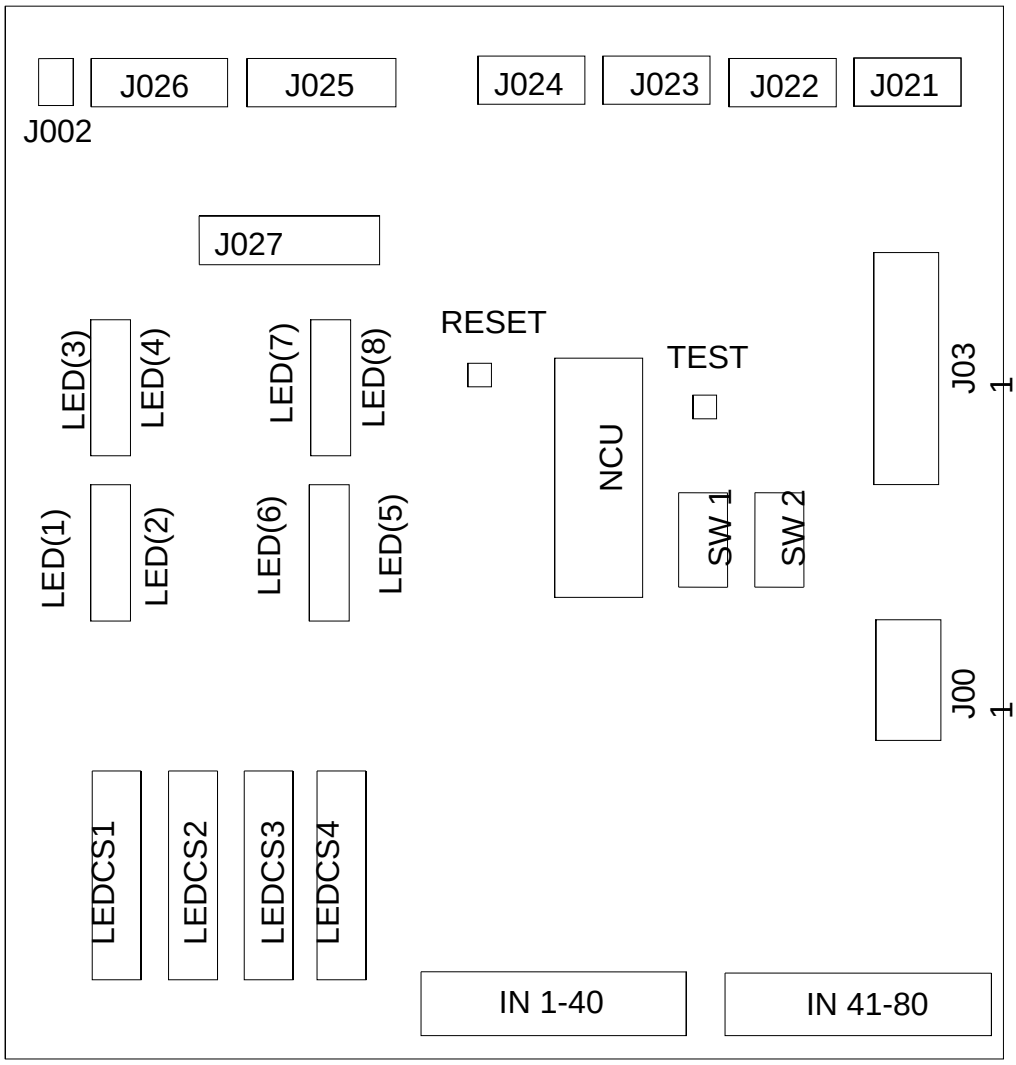
7. SWITCHES, CONTROL, AND LED SIGNALS

(DIP SW1, SW2 can be found in the main board, but the DIP SW3, SW4 in the DIP SW board.)



1. Refer to the attached I/O chart and the schematic.
2. To adjust DIP SWITCH please refer the I/O chart. The initial setting is in capitalization.

MAIN BOARD



Wrong Display:
If the input signal is not normal when you open the machine, the number of the switch a.k.a. (SW) with wrong setting will be displayed on the LED#1-3.

Example：E01： Error of the coin mechanism A.

E02： Error of coin mechanism B.

E05： Error of the catcher moving left or right.

E07： Error of the left end side

E08： Error of the right end side

E09： Error of the score switch

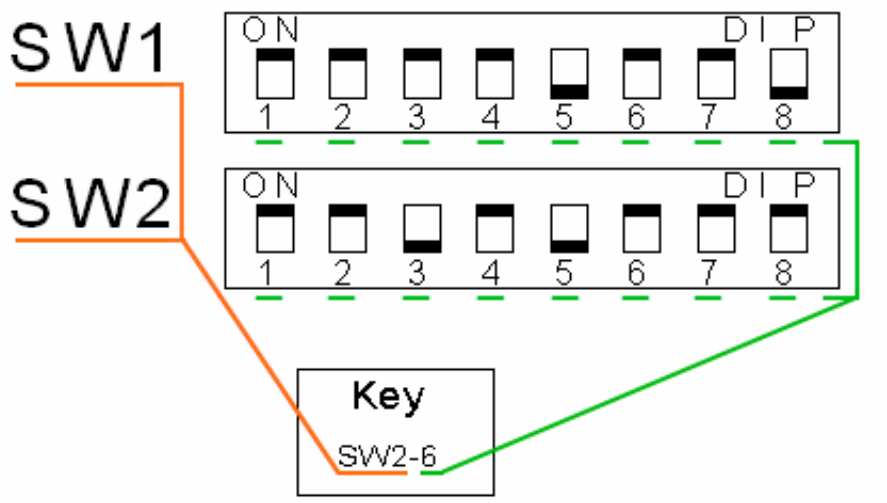
HLP and ticket amount alternating flashing： Error of the ticket mechanism feedback signal.

How to Test:

1st Press

Enter the test program by pressing the "TEST" button once on the main board when in DEMO mode. This will put the game into its initial stage.
Displays will come up showing this.

Adjust DIP Initial setting



The above are subject to change without notice.

Demo music

SW3-8 is demo music adjustment. There are 2 options.

Demo music	SW38	NOTE
No	OFF	When no one plays, there is no demo music
Yes	ON	When no one plays, there is demo music.

8. PARAMETERS SETTINGS (PROGRAMMING CHART)

DIP SWITCH								
CONTENT	**SW11**	**SW12**	**SW13**	**SW14**	**SW15**	**SW16**	**SW17**	**SW18**
COIN (COINS TO PLAY)								
1	ON	ON						
2	**OFF**	**ON**						
3	ON	OFF						
4	OFF	OFF						
GAMES PER PLAY								
1			**ON**	**ON**				
2			OFF	ON				
3			ON	OFF				
4			OFF	OFF				
MERCY TICKET (THE LEAST TICKET PAYOUT)								
0					ON	ON		
1					**OFF**	**ON**		
3					ON	OFF		
5					OFF	OFF		
SCORE PER BALL (SCORE PER BALL CAUGHT)								
1							**ON**	**ON**
2							OFF	ON
3							ON	OFF
4							OFF	OFF
CONTENT	**SW21**	**SW22**	**SW23**	**SW24**	**SW25**	**SW26**	**SW27**	**SW28**
SHOOTING SPEED (SHOOTING SPEED OF THE BALLS)								
Slower	ON	ON						
Slow	OFF	ON						
Normal	**ON**	**OFF**						
Fast	OFF	OFF						
SCORE PER TICKET								
0			ON	ON	ON			
1			OFF	ON	ON			
2			ON	OFF	ON			
3			**OFF**	**OFF**	**ON**			
4			ON	ON	OFF			
6			OFF	ON	OFF			
8			ON	OFF	OFF			
10			OFF	OFF	OFF			
GAME TIME (LENGTH OF GAME)								
25						ON	ON	ON
30						OFF	ON	ON
35						ON	OFF	ON
40						**OFF**	**OFF**	**ON**
45						ON	ON	OFF
50						OFF	ON	OFF
60						ON	OFF	OFF
75						OFF	OFF	OFF

CONTENT	SW31	SW32	SW33	SW34	SW35	SW36	SW37	SW38
BONUS TICKET (BONUS TICKETS TO START)								
0	ON	ON	ON					
25	OFF	ON	ON					
30	ON	OFF	ON					
40	OFF	OFF	ON					
50	**ON**	**ON**	**OFF**					
75	OFF	ON	OFF					
100	ON	OFF	OFF					
200	OFF	OFF	OFF					
BONUS INCREMENTS								
0				ON	ON	ON		
1				OFF	ON	ON		
2				**ON**	**OFF**	**ON**		
3				OFF	OFF	ON		
4				ON	ON	OFF		
5				OFF	ON	OFF		
10				ON	OFF	OFF		
15				OFF	OFF	OFF		
DEMO Mode	Yes						**ON**	
	No						OFF	
DEMO Music	Yes							**ON**
	No							OFF
	SW41	**SW42**	**SW43**	**SW44**	**SW45**	**SW46**		
BONUS SCORE (BONUS SCORE TO START)								
0	ON	ON	ON					
20	OFF	ON	ON					
25	**ON**	**OFF**	**ON**					
30	OFF	OFF	ON					
35	ON	ON	OFF					
40	OFF	ON	OFF					
45	ON	OFF	OFF					
50	OFF	OFF	OFF					
CATCHER MOVEMENT (IN DEMO MODE)								
Airship Motion	Yes			**ON**				
	No			OFF				
BONUS MAXIMUM SCORE								
200					ON	ON		
500					**OFF**	**ON**		
750					ON	OFF		
900					OFF	OFF		

9. MAINTENANCE AND INSPECTION

9-1. Install and adjust:

Check the parts list before installation.

Check and adjust the leveler of the game on even ground.

After installation, plug in, and check game operation. Press the game 'test button' and start for 1 to 2 min to check the normal operation. If a problem is found, please stop the game and check for any loose connections, correct power, etc.

9-2. Maintenance:

Start this game and verify the correct operation before putting the game into everyday operations.
Clean the surface of the game as needed.
Check the inside parts after running for 1 month. And check to be sure all parts are secure and in proper working order

1. Remove power before servicing game.

To avoid short circuit, the power must be removed before touching inside. If you have to switch on the power, please refer the operation manual.

2. Choose the appropriate replacement parts.

Using the wrong parts could lead to malfunction or damage to game and components.

3. Do not substitute or change equipment, without authorization.

It could lead to a short circuit and machine malfunction, or even could cause a fire.

4. Do not put vases with water cups or containers on the machine. Also chemical or heavy items should not be allowed around game.

The spill will cause short circuit, and people will be injured by the falling items which also can destroy the machine.

5. Do not place any items in front of the air outlet of the game.

Or it will cause higher temperature inside the game, and could affect the game reliability.

9-3. Troubleshooting:

⚠ WARNING

For your safety and to reduce risk of damage to your game read the Important Safety Information in Chapter 2-2 before attempting any troubleshooting procedure.

TROUBLESHOOTING PHILOSOPHY

When troubleshooting any product, certain general guidelines should be followed.

1. Always check to be sure that you game is turned on. Be sure that all of the fuses in the game are functional and check to see that the AC voltage is in the proper operating range for your game.

2. Check to be sure that all of the game harnessing is plugged in properly and that all of the pins are firmly seated in the connectors. It is always possible that a harness can be damaged by rough shipping or moving.

3. Check game harnessing to be sure that none of the wires have become are damaged. Using a handheld multi-meter, check continuity of the wires to make sure they are not broken.

4. Check for obvious damage to any P.C. Boards or electrical components.

5. If you have multiple games or multiple parts on a game, change or exchange the parts and see if the problem goes away or moves to another location. This way you can quickly eliminate certain parts as being the problem with the game.

6. When changing electronic or electrical components, ALWAYS turn off and unplug the game.

7. Check to see that all power supplies are delivering the specified voltages to the P.C. Boards and components as shown in the manual.

Symptom	Possible Problem	Solution
	Power	***Power***
Sound Problems *-No sound* *-Low Sound* *-Intermittent Sound*	Low Volume Faulty speaker harnessing Faulty speaker Faulty sound board or sound board harnessing Faulty Main P.C. Board	Check Volume Control and adjust as necessary Check connections and/or repair harnessing Check and/or replace speaker Check connections or Replace Sound Board Check and/or repair or replace Main P.C. Board
Game does not take or add money correctly	Coin switch out of adjustment Coin mech dirty or improperly adjusted Faulty Coin switch Faulty coin switch harness or connector Improperly programmed electronic mech Game improperly programmed Faulty Front Panel Board Faulty Main P.C. Board or component	Re-bend coin switch wire Clean and adjust mech as necessary Check and/or replace switch Check and/or repair harnessing Reprogram or replace electronic mech Check programming options and adjust Repair and/or replace Front Panel Board Repair and/or replace Main P.C. board
Ticket Dispenser not working properly, or no tickets being dispensed	No tickets in the game Tickets jammed in dispenser Ticket dispenser sensor blocked with debris Poor connection on the ticket dispenser Game improperly programmed Faulty ticket dispenser Faulty ticket dispenser harnessing Repair and/or replace Front Panel Board Faulty Main P.C. Board	Refill ticket dispenser and press the reset button Clear ticket jam Clean off sensor Check and/or replace connectors Check ticket programming options Replace dispenser Check and/or repair harnessing Faulty Front Panel Board Replace or repair Main P.C. Board
Game will not start	Game power off Main fuse blown Ground wire broken or loose Power Supply problem or failure Faulty P.C. board or component	Check on/off switch and power cord Check and/or replace fuse as necessary Replace or tighten faulty ground wire Check Power Supply output and connections Repair and/or replace main P.C. board
Game stops or is stopped with nothing displayed	The power connector is disconnected. Possible faulty connection or short circuit.	Reconnect the connector securely. Check all circuitry for faulty connections or short circuits.
Balls not coming out	Balls jammed Blower adjustment needed Fan blower motor Ball Feeder adjustment needed	(See Ball Jamming Solution on page 19) Adjust Fan Cover Plate Check that fan motor is running Check and make adjustments to Ball Feeder (See Ball Feeder Tension Adjustment Screw on page 18)
Balls coming out too slowly or too quickly	Adjustment needed to the Fan Cover Plate Program speed	(See Fan Cover Plate Description on page 18) Check Program Speed on R.C. Board Feeder
Handle does not work	Faulty wiring or connections Motor Drives Joy Stick on switch Belt Drive	Check the circuitry and the catcher assembly Check Motor for Proper Movement Check Joy Stick operation and connector Check Belt and Pulley Assembly
Balls Do Not Score	Ball Score Switch Faulty connections, circuitry or wiring	Check switch and activation wire Check connections, circuitry and wiring
Lights do not light up or, light bulbs are out	Lamps are burnt out Possible faulty socket connection or short circuit	Replace the lamps Check connections, connectors and the circuitry.

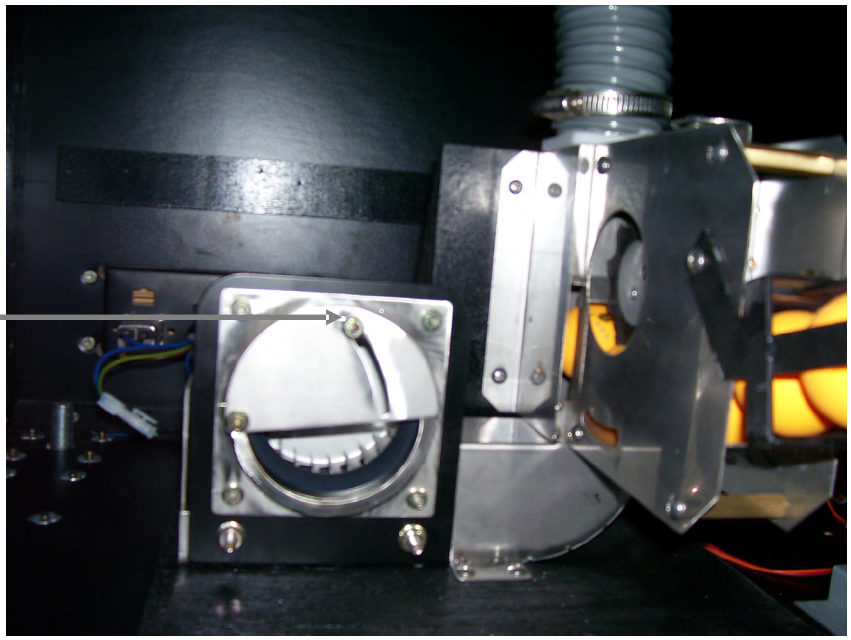
9-4. Fan Cover Plate:

ADJUSTMENT TO INCREASE OR DECREASE BALL LAUNCH SPEED

STEP 1: Loosen the screw on the Fan Cover Plate. (Half-circle metal plate)

STEP 2: Slide the Ball adjust board to restrict or allow for more air flow.

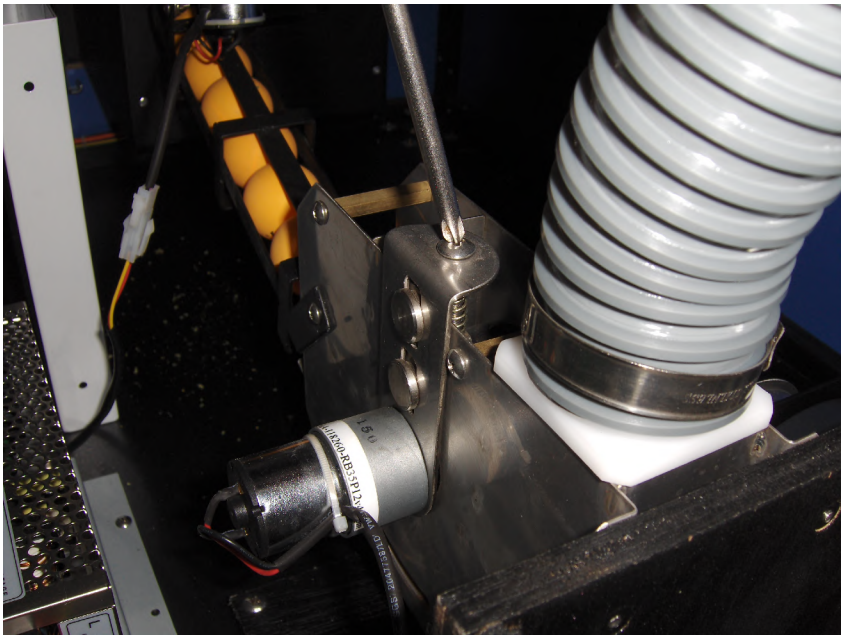
STEP 3: Once set to the right amount of air flow tighten the screw back down.



9-5. Ball Feeder Tension Adjustment Screw:

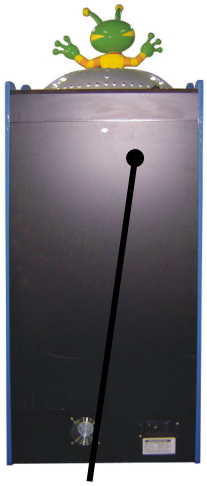
ADJUSTMENT TO INCREASE OR DECREASE THE TENSION ON THE BALL

Loosen or tighten screw to increase or decrease the Ball Feeder's Tension and allow the balls to be released easier.



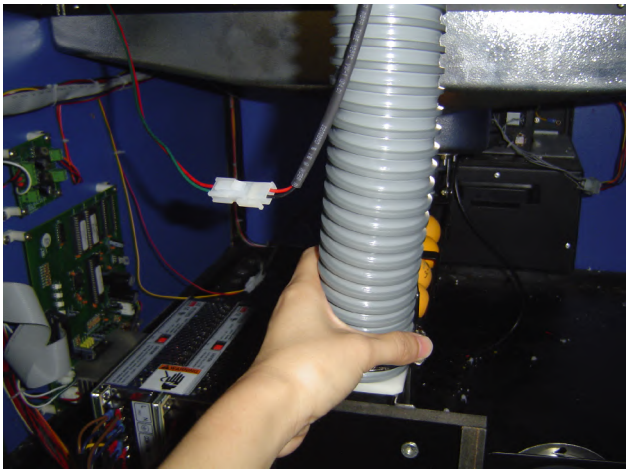
9-6. Ball Jamming Solution:

STEP 1:



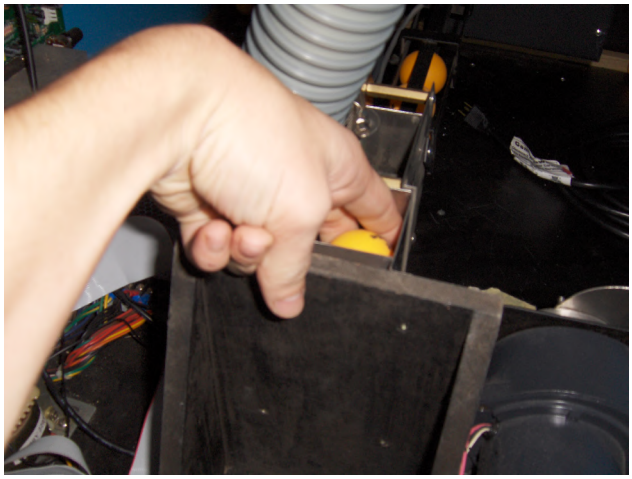
Open the rear service door.

STEP 2:



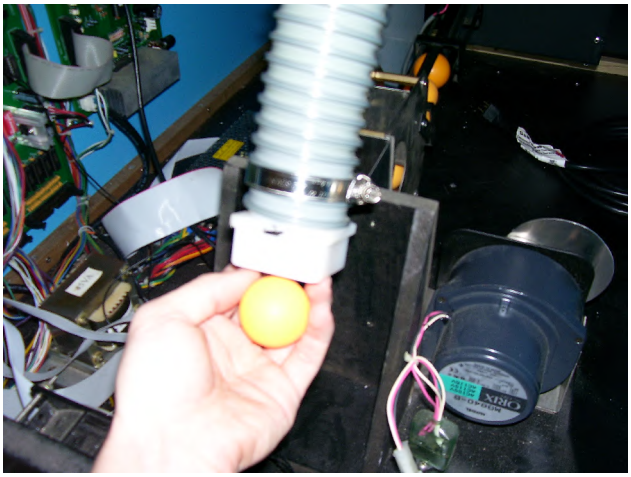
Very carefully wiggle the Vent Pipe and white box attachment out of the hole

STEP 3:



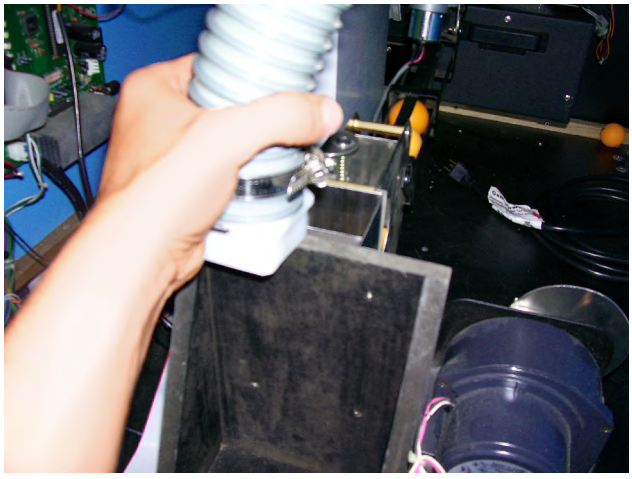
Remove balls from the Ball Sending Main Frame

STEP 4:



Remove balls from the Vent Pipe

STEP 5:



Replace Vent Pipe and attachment back into the Sending Main Frame

STEP 6:

Add balls to game from the hole

9-7. Removing the Control Panel:

STEP 1:

Remove the 2 screws on the two sides of the control panel.

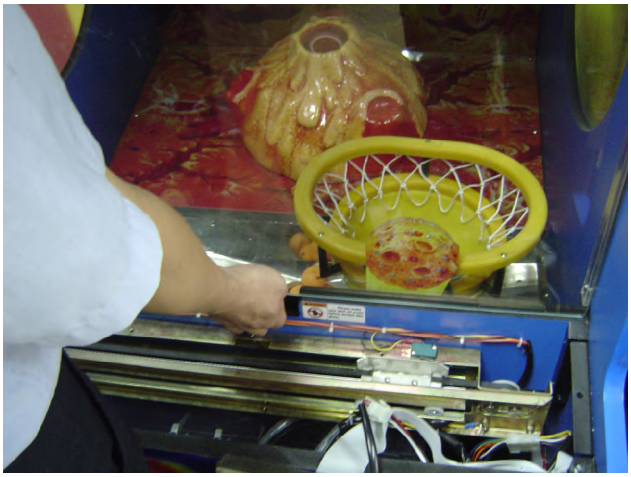
STEP 2:

Hold on to the handle and pull the control panel out of the game.

STEP 3:

Service the catcher assembly by removing the control panel.

STEP 4:



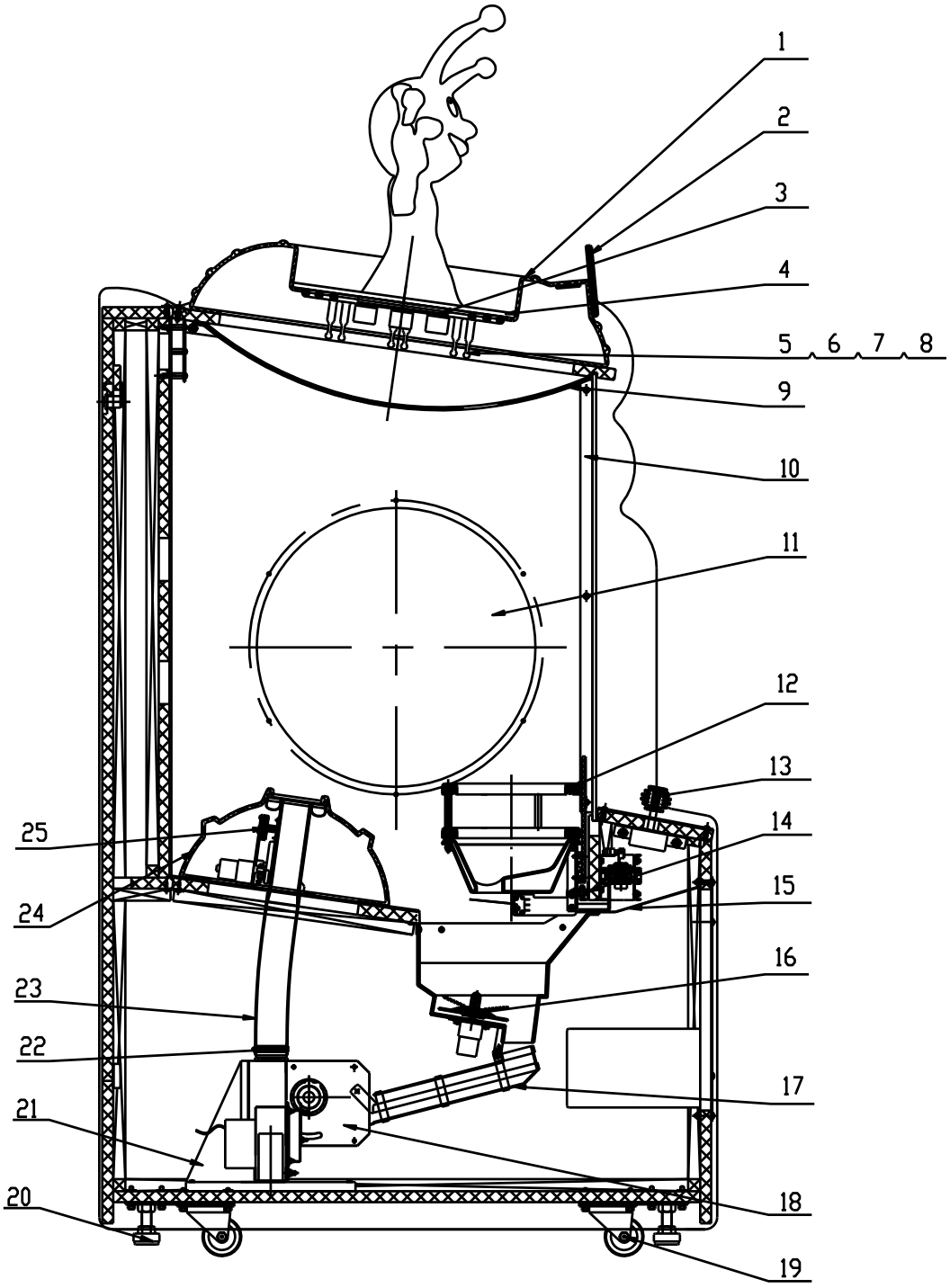
Take the front glass out after removing the control panel.

10. GAME DIAGRAMS AND SCHEMATICS

10-1. Main Parts:

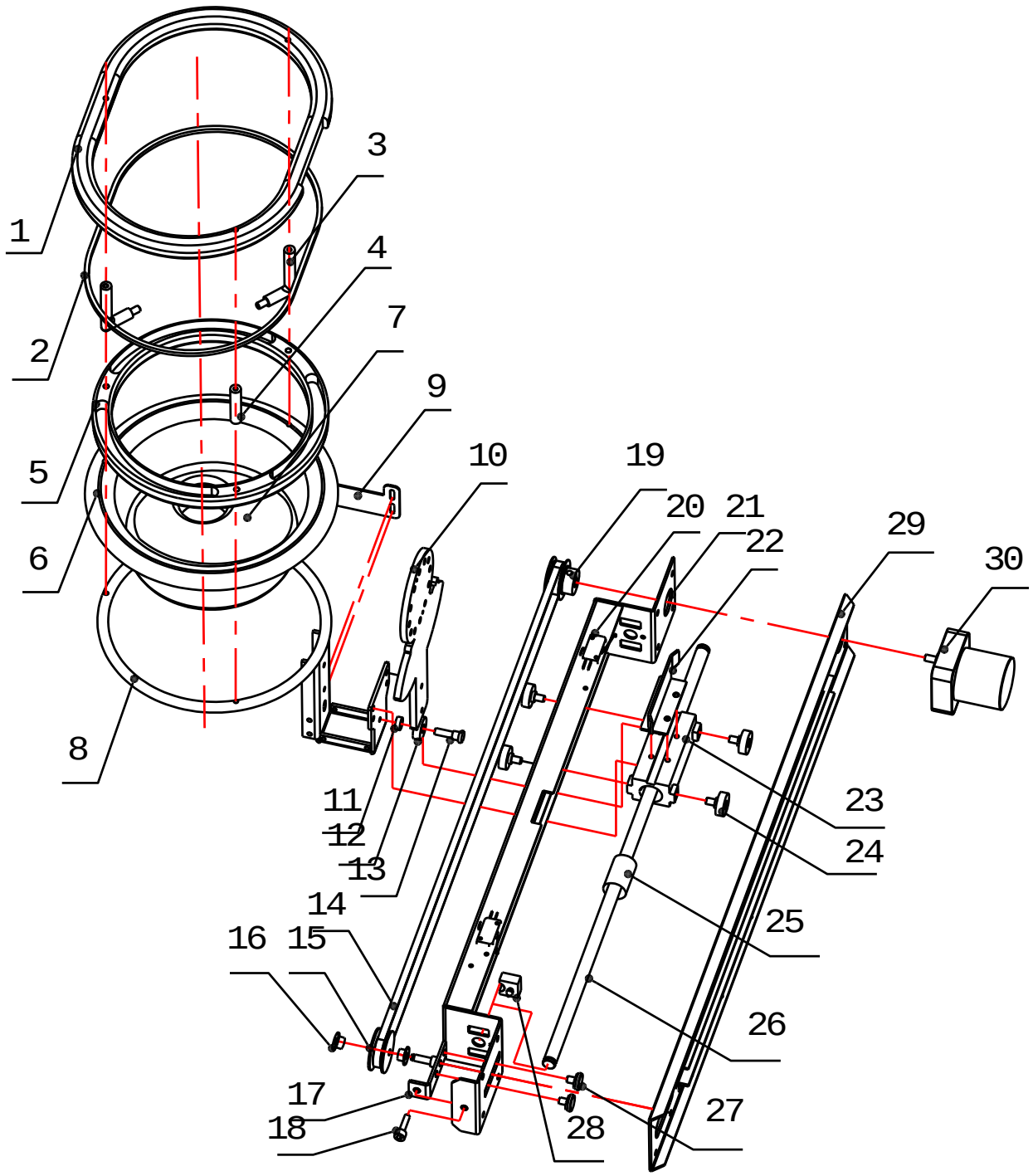
No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-601-000	M0800600	Fiberglass Alien	1		
2	C103-602-000	M0800601	Header	1		
3	C103-603-000		Fiberglass Airship	1		
4	C103-604-000		Top Lampshade	1	PET	
5	C103-401-000		Spot Light	3	12V/35W	
6	C103-402-000		Spot Light Cup	3	TH117	
7	C103-605-000		Front Glass	1	Toughened glass	
8	C103-801-000	E0800611	Display - Large	2		
9	C103-606-000		Moving PCB	1		
10	C103-403-000		Rocker Ball	1	Duralumin stick	
11	C103-404-000		Speaker			
12	C103-101-000		Speaker Grill	2	Q235	
13	C103-607-000		Speaker Mounted Plate	2		
14	C103-405-000		Triple Door	1	organ	
15	C103-406-000	E0800621	Coin Mech.	1		
16	C103-407-000		Bulb	2		
17	C103-408-000		Lock	1	171	
18	C103-409-000		Coin Box Lock	1	2222	
19	C103-410-000	E0800622	Counter Assy	1		
20	C103-102-000		Coin box	1		
21	C103-411-000		Ticket Dispenser	1		

10-2. Internal Assembly:



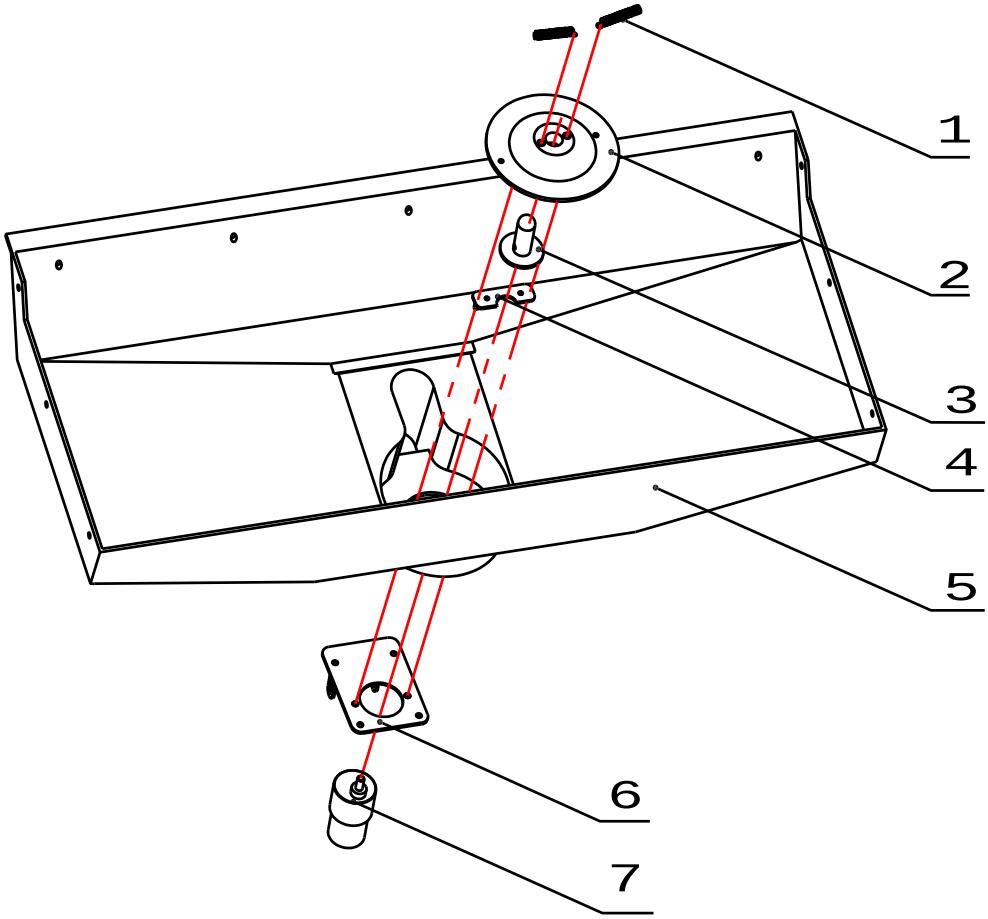
No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	103-603-000		Fiberglass Airship	1	Fiberglass	
2	C103-602-000		Header	1		
3	103-103-000		Transformer Holder	1	Aluminum plate	
4	103-608-000		Alien Acrylic	1	Clear acrylic	
5	C103-412-000	E0800600	Neon Light (Green)	1		
6	C103-413-000	E0800601	Neon Light (Red)	1		
7	C103-414-000	E0800602	Neon Light (Blue)	1		
8	C103-415-000	E0800603	Neon Light Transformer	3		
9	C103-604-000		Top Lampshade	1	Milk white PET	
10	C103-609-000		Glass capped edge	2	Clear acrylic	
11	C103-610-000		Side Acrylic Window	2	Clear PTE	
12	C103-001-000		Catch Assy.	1		
13	C103-403-000	M0800602	Rocker Ball	1	Ultralumin stick	
14	C103-104-000		Catcher Supporting Guide	1	stainless steel	
15	C103-611-000		Protective Cover	1	Clear PVC	
16	C103-002-000		Separation Ball Assy	1		
17	C103-105-000		Ball Chute	1	Q235	
18	C103-003-000		Sending ball Assy	1		
19	C103-416-000		Castor	4		
20	C103-417-000		Leveler	4		
21	C103-501-000		Sending ball Assy holder	1	Wood	
22	C103-418-000		Stainless Steel Clasp	2	40-60mm	
23	C103-419-000		Vent Tube	1	5'×300mm	
24	C103-612-000		Volcano	1	Fiberglass	
25	C103-004-000		Shooting Ball Assy	1		

10-3. Catch Assembly:



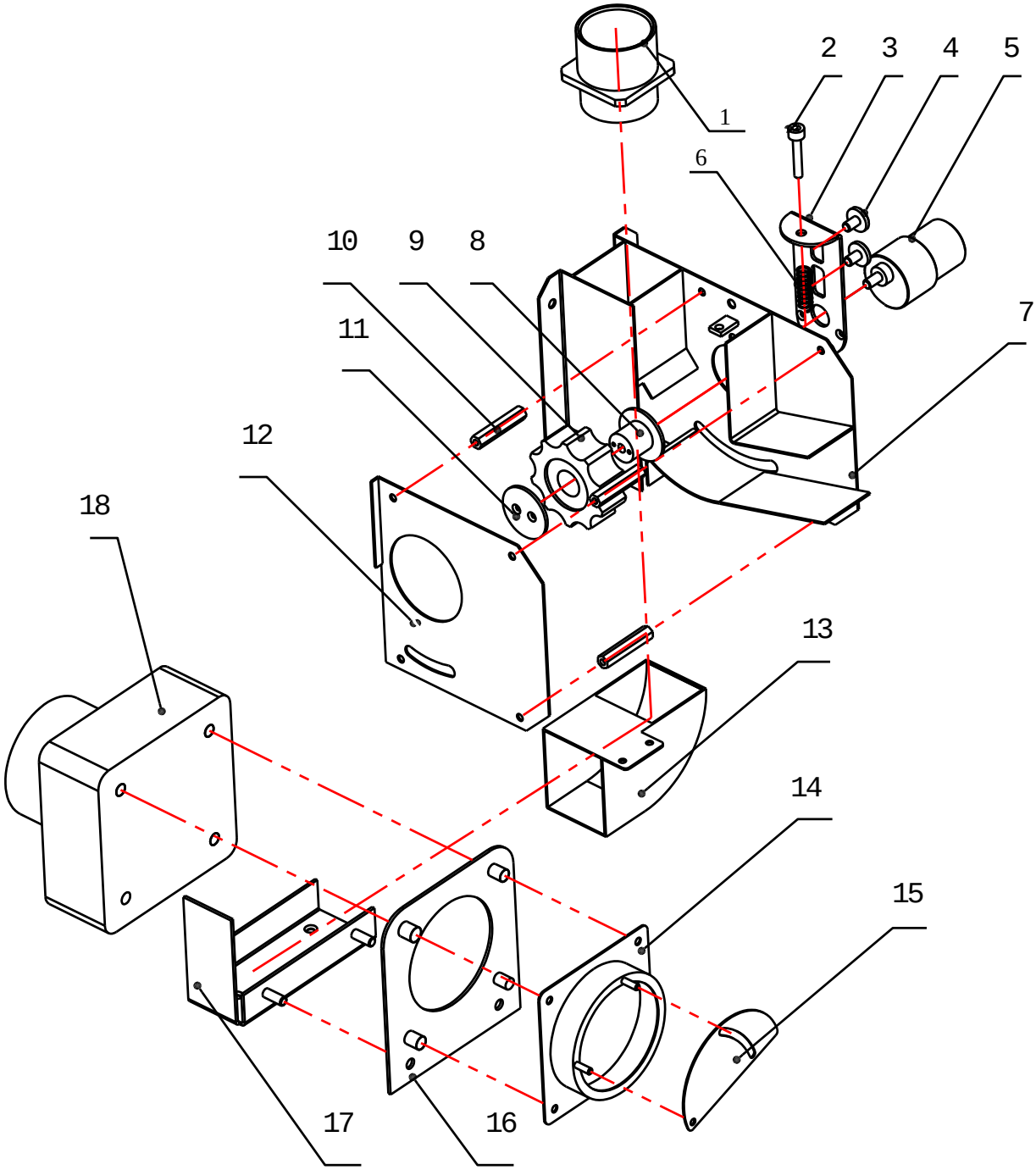
No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-613-000		Shield Ring A	1	Nylon	
2	C103-106-000		Net Fixed Laps	1	Stainless steel	
3	C103-107-000		Ring Bracket B	2	Q235	
4	C103-108-000		Ring Bracket A	1	Q235	
5	C103-614-000		Shield Ring B	1	Nylon	
6	C103-615-000		Catcher	1	Rubber	
7	C103-616-000		Catcher Cushion	1	Leather	
8	C103-109-000		Catcher Bracket	1	Q235	
9	C103-110-000		Switch Rack	1	Stainless steel	
10	C103-617-000		Front Lamp Board	1		
11	C103-111-000		Bracket Bearing Sleeve	1	Stainless steel	
12	C103-420-000		Bearing	1	d=8,D=22,H=7	
13	C103-618-000		Bracket bearing	1	Stainless steel	
14	C103-421-000	E0800619	Synchro Belt	1		
15	C103-619-000		Sub-drive wheel	1	Nylon	
16	C103-422-000		Block Bearing	2	f 6×f 15×f 17×5	
17	C103-112-000		Sub-drive Wheel Rack	1	Stainless steel	
18	C103-113-000		Column Allen screw	1	Stainless steel	
19	C103-114-000		Sub-drive Wheel Gear	1	LY-12	
20	C103-423-000	E0800620	Micro SW	2	Arm 28mm	
21	C103-115-000		Movement Bracket	1	Q235	
22	C103-116-000		SW Flip	1	Stainless steel	
23	C103-117-000		Linearity bearing sleeve	1		
24	C103-424-000		Nylon Bearing	4	M6×f 22	
25	C103-118-000		Front Sleeve	1	Q235	
26	C103-301-000		Major Axis	1	Special axis	
27	C103-302-000		Bolt	2	Stainless steel	
28	C103-620-000		Crash-proof Rubber	2	Black Rubber	
29	C103-119-000		Main Bracket	1	Q235	
30	C103-425-000	E0800618	DC Motor (Net Motor)	1	S6DA10-12A DC12V 10W	

10-4. Separation Ball Assembly:



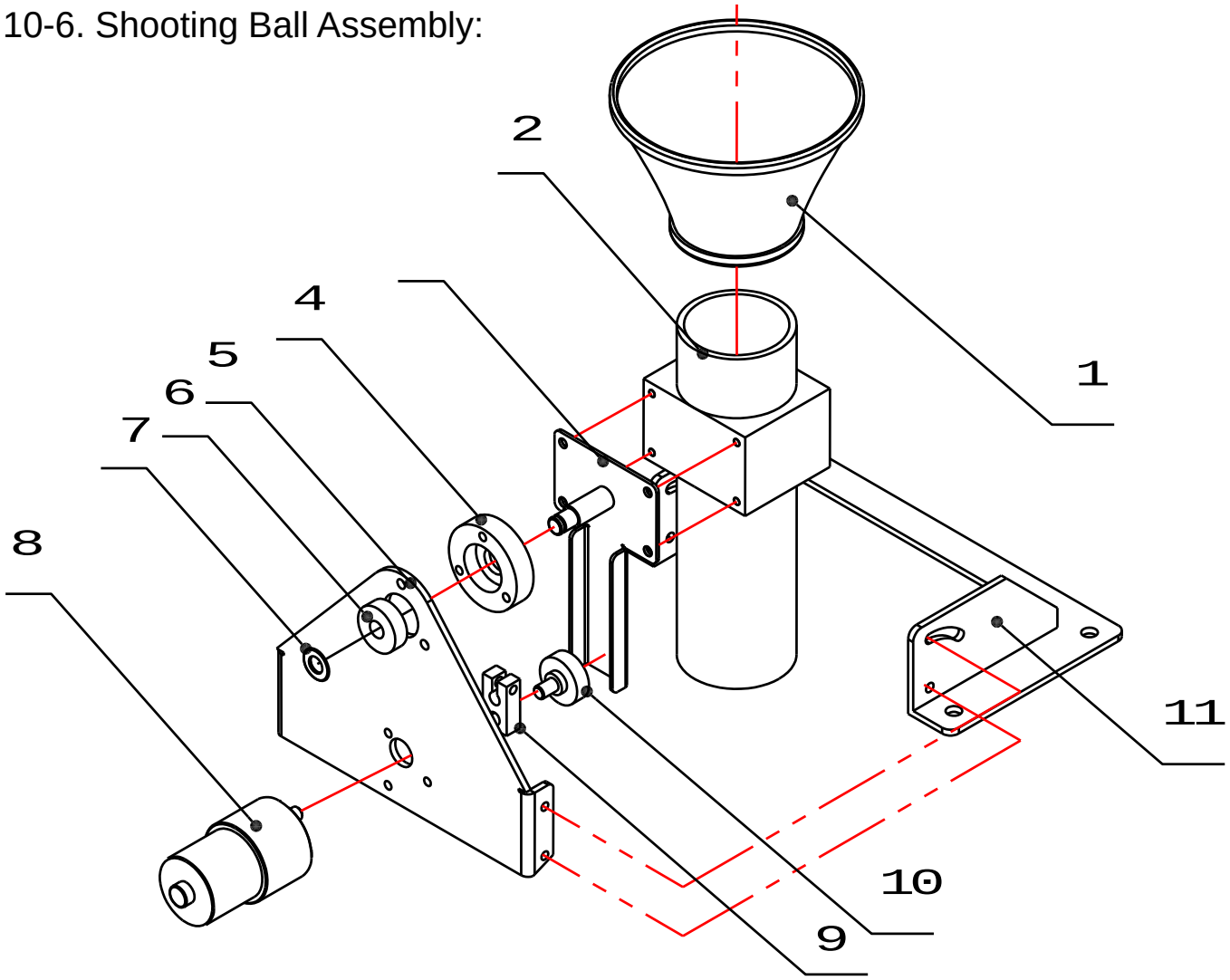
No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-120-000		Spinning spring	2	60Si2MnA	
2	C103-621-000		Spinning wheel	1	Nylon	
3	C103-121-000		Spinning Shaft	1	LY-12	
4	C103-122-000		Motor Patch	1	Stainless steed	
5	C103-622-000		Ball Funnel	1	ABS	
6	C103-123-000		Motor Bracket B	1	Stainless steed	
7	C103-426-000	E0800616	DC Motor	1	DC12V 1：100	

10-5. Send-Ball Assembly:



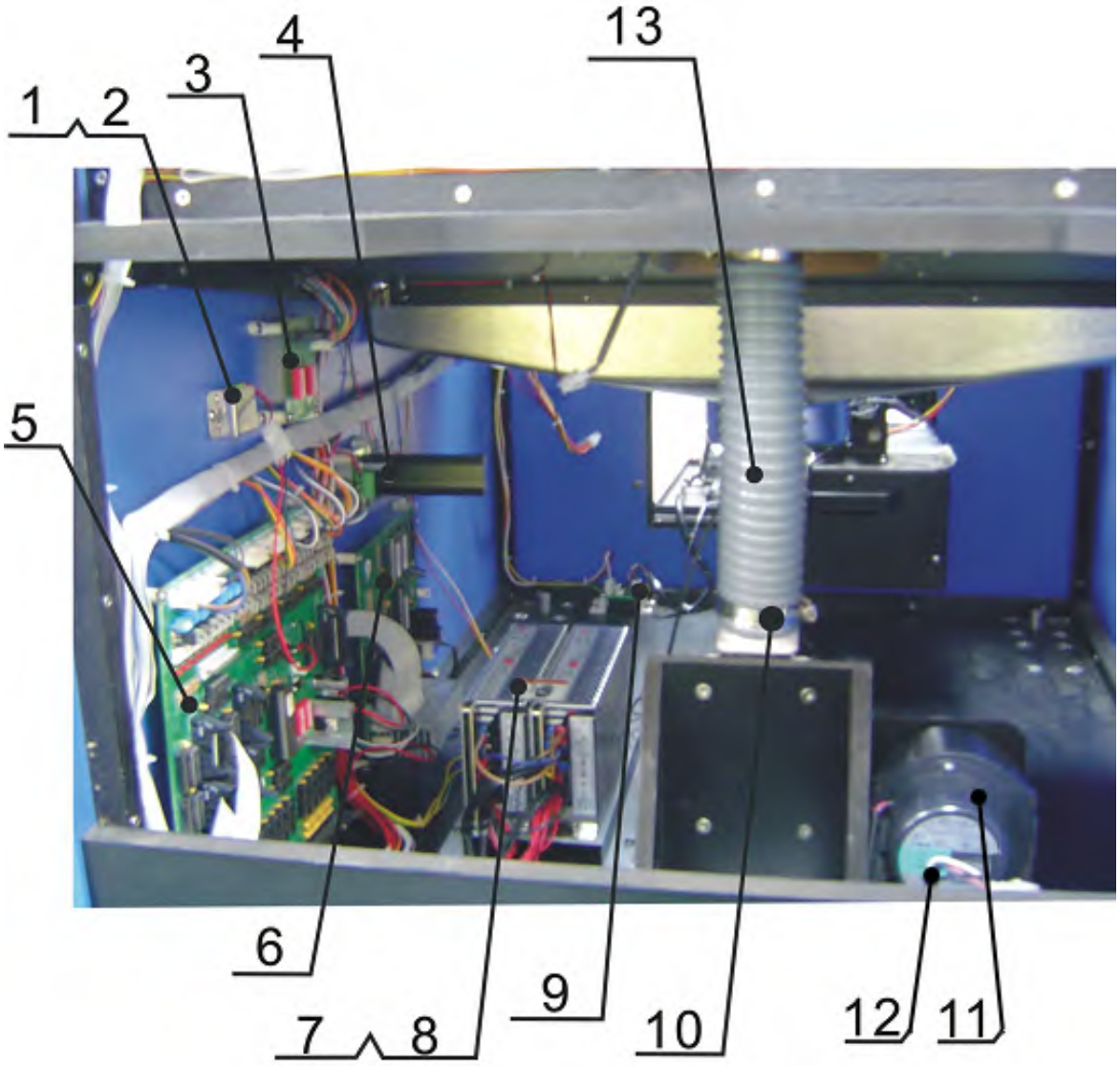
No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-623-000		Vent Hole	1	Nylon	
2	C103-303-000		Column Alan Screw	1	Stainless steel	
3	C103-124-000		Motor Bracket	1	Stainless steel	
4	C103-302-000		Bolt	2		
5	C103-426-000	E0800616	DC Motor	1	DC12 40	
6	C103-125-000		Helical Compression Spring	1	65Mn	
7	C103-126-000		Ball Sending Main Frame	1	Stainless steel	
8	C103-127-000		Flange	1	LY-12	
9	C103-624-000		Rubber Wheel	1		
10	C103-128-000		Brace	4		
11	C103-129-000		Flange Cover	1	LY-12	
12	C103-130-000		Cover Plate	1	Stainless steel	
13	C103-131-000		Vent Bent Tube	1	Stainless steel	
14	C103-132-000		Adjust Holder	1	Stainless steel	
15	C103-133-000		Fan Cover Plate	1	Stainless steel	
16	C103-134-000		Net Panel	1		
17	C103-135-000		Blower Bracket	1	Stainless steel	
18	C103-427-000		Blower	1	110V35W	

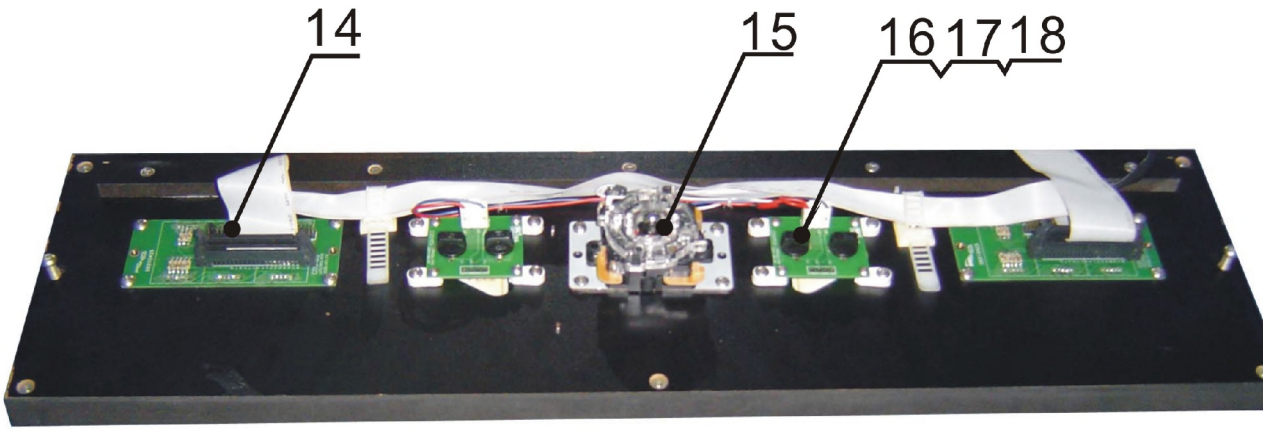
10-6. Shooting Ball Assembly:



No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-625-000		Leather sheath	1	Cutis	
2	C103-136-000		Shooting pipe	1	Stainless steeld1.5	
3	C103-137-000		Sway Shaft	1	Q235	
4	C103-138-000		Bearing Sleeve	1		
5	C103-139-000		Bracket	1	Q235	
6	C103-420-000		Bearing	1	d=8,D=22,H=7	
7	C103-304-000		Washer	1	f 8	
8	C103-428-000	E0800617	DC Motor (Volcano Motor)	1	DC12V，10rpm	
9	C103-140-000		Eccentric Block	1	Q235	
10	C103-424-000		Nylon Bearing	1	f 6×22	
11	C103-141-000		Base Bracket	1	Q235	

10-7. Electrical Part:



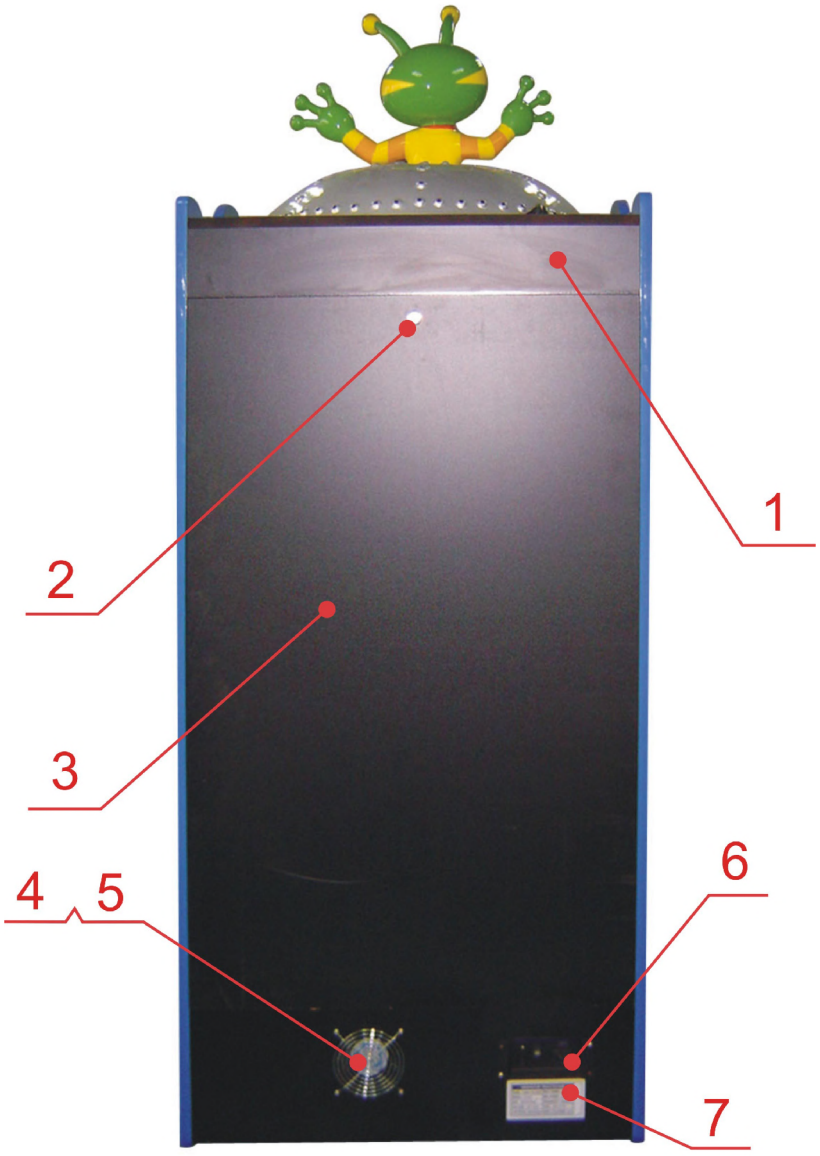


No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-429-000		Battery	1	670×190	
2	C103-142-000		Battery Holder	1	750×930	
3	C103-802-000	E0800606	DIP SW Board	1	clear PTE	
4	C103-803-000	E0800607	Motor Conversion Board	1	1070×1630	
5	C103-804-000	E0800604	Main Board	1	1070×1630	
6	C103-805-000	E0800605	Sound Board	1	110×24	
7	C103-430-000	E0800613	Power Supply	2	730×210	
8	C103-143-000		Power Supply Holder	1	750×650	
9	C103-806-000	E0800608	Ticket Conversion Board	1	18×26	
10	C103-418-000		Clasp	2	60×20	
11	C103-427-000	E0800614	Blower	1	750×420 (d3 PET)	
12	C103-441-000	E0800615	Startup Capacitor (Relay)	1	30×6	
13	C103-419-000		Vent Tube	1	30×6	
14	C103-807-000	E0800612	Display -Small	2	30×6	
15	C103-431-000		Direction SW	1	30×6	
16	C103-808-000	E0800609	Direction Lamp Board	2		
17	C103-432-000		Bulb	4		
18	C103-433-000		Bulb Socket	4		

10-8. Game Decal:

No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-701-000		Header decal	1	670×190	
2	C103-702-000		Playfield decal	1	750×930	
3	C103-610-000		Side acrylic	2	clear PTE	
4	C103-703-000		Side-L decal	1	1070×1630	
5	C103-704-000		Side-R decal	1	1070×1630	
6	C103-705-000		Lamp bracket decal	1	110×24	
7	C103-706-000		Control panel decal	1	730×210	
8	C103-707-000		Front door decal	1	750×650	
9	C103-708-000		Coin label	2	18×26	
10	C103-709-000		Ticket label	1	60×20	
11	C103-710-000		Bevel label	1	750×420 (d3 PET)	
12	C103-711-000		Volume label	1	30×6	
13	C103-712-000		Reset label	1	30×6	
14	C103-713-000		Coin counter label	1	30×6	
15	C103-714-000		Ticket counter label	1	30×6	

10-9. Back of the Game:



No.	Reference No.	Part No.	Name	Qty	Spec.	Note
1	C103-005-000		Cabinet	1		
2	C103-408-000		Lock	1		
3	C103-502-000		Service door	1		
4	C103-434-000		Vent	1		
5	C103-435-000		Vent net	2		
6	C103-436-000		Outlet Assembly	1		
7	C103-714-000		Information plate	1		

11. WARRANTY

BOB'S SPACE RACERS INC.
90 DAY COIN-OPERATED GAME WARRANTY

1. INCLUDED IN THIS WARANTY Bob's Space Racers®, Inc. warrants to the original purchaser only that the equipment that is the subject of this sale conforms to its specifications, and is free from defects under normal service for a 90 day period from the original date of deliver. This warranty does not include any damages resulting from occurrences listed in paragraph 2 below. This warranty is not transferable under any circumstance. Any claims under this warranty must be received in writing by Bob's Space Racers®, Inc. within 120 days from date of delivery. Within a reasonable time of such written notification Bob's Space Racers®, Inc. will replace or repair any defective component of the equipment or part thereof which fails for reasons other than normal service, use, or wear. Bob's Space Racers®, Inc. reserves the right to request dated proof of purchase by the end user (original purchaser) at any time. Light bulbs are specifically excluded from this warranty and shall be the sole responsibility of the purchaser. Bob's Space Racers®, Inc., within its sole discretion, makes the final determination as to whether to repair or replace any component and whether any such repair or replacement shall be performed where the equipment is located or at it's home facility in Volusia County, Florida, or another facility of its sole choice. Any and all freight charges for the purposes of repair or replacement shall be paid by the original purchaser. All defective parts shall be returned to Bob's Space Racers®, Inc. if requested. Bob's Space Racers®, Inc. does not warrant that the equipment will meet any original purchaser's specific requirements or that the operation of the equipment will be uninterrupted. These remedies are the original purchaser's exclusive remedies for breach of warranty.

2. EXCLUDED BY THIS WARRANTY Bob's Space Racers®, Inc. does not warrant (a) any product, components or parts not manufactured by Bob's Space Racers®, Inc.; (b) damages caused by use of the equipment for purposes other than those for which it was designed; (c) defects caused by failure to provide a suitable installation environment for the equipment; (d) damage caused by unauthorized attachments, modification, or service; (e) damage caused by normal wear and tear or improper power supply; (f) damage caused by accident or disaster such as fires, flood, lightning, and wind; or (g) any other abuse or misuse of the equipment.

3. EXCLUSIVE WARRANTY. THE FORGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OR REMEDIES, WHETHER WRITTEN, ORAL OR IMPLIED. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, COURSE OF DEALING OR USAGE OF TRADE ARE HEREBY EXPRESSLY DISCLAIMED AND EXCLUDED.

4. REMEDIES LIMITED. UNDER NO CIRCUMSTANCES, EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, SHALL BOB'S SPACE RACERS®, INC. BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, SPECIAL INCIDENTAL OR CONSEQUENTIAL ARISING OUT OF THE USE OR INABILITY TO USE THIS EQUIPMENT INCLUDING BUT NOT LIMITED TO ANY CLAIM FOR LOSS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF USE OF THE EQUIPMENT, OR ANY ASSOCIATED EQUIPMENT, FACILITIES OR SERVICE, DOWNTIME, THE CLAIMS OR COSTS OF THIRD PARTIES INCLUDING CUSTOMERS AND INJURY TO PROPERTY. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

5. NO OTHER WARRANTIES. Unless modified in writing and signed by both parties, this agreement is understood to be the complete and exclusive agreement between the parties, superseding all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this agreement. No employee or representative of Bob's Space Racers®, Inc. or any other party is authorized to make any other warranty or to assume any other liability in connection with the sale of its equipment.

6. TIME LIMIT FOR CLAIMS. Any claim for breach of warranty or claims under this warranty must be received in writing by Bob's Space Racers®, Inc. within 120 days following delivery of the equipment.

7. FUTURE CHANGES. Bob's Space Racers®, Inc. reserves the right to reserve, change or modify the construction and design of its equipment or any component part or parts thereof without incurring the obligations to make such changes or modifications in present equipment.

8. ALLOCATION OF RISKS. This agreement allocates the risks of equipment failure between Bob's Space Racers®, Inc. and the original purchaser. This allocation is recognized by both parties and is reflected in the price of the goods. THE PURCHASER ACKNOWLEDGES THAT IT HAS READ THIS AGREEMENT, UNDERSTANDS IT, AND IS BOUND BY ITS TERMS.

9. TO OBTAIN WARRANTY SERVICE. The original purchaser must, at his/her own expense, bring or ship the equipment to an authorized location for service. Additionally, the original purchaser must pay all freight, shipping or transportation charges for the return of the equipment from Bob's Space Racers®, Inc. to the original purchaser. Telephone or write:

Bob's Space Racers®, Inc.
427 15th Street
Daytona Beach, FL 32117
Telephone number: 386/677-0761
FAX: 386/677-0794

WHEN CALLING FOR SERVICE

1. When calling for service, please check the service manual first. Many times the answer to your problem has been addressed in this documentation.

2. Please make sure you have the serial number of the game ready when you call.

3. If this is a repeat call, please tell the service technician that you have made a previous call regarding this problem. This way we will be able to retrieve the history on your game allowing us to serve you better and save you time.

4. Please retain proof of purchase for your product. This might be requested for warranty repairs.

5. Please call from the game if possible since we might need you to check certain things on the game while we are on the telephone with you.

IF YOU HAVE ANY QUESTIONS OR COMMENTS, PLEASE CALL OUR SERVICE DEPARTMENT AT

(386) 677-0761
(MONDAY – FRIDAY, 8:30AM – 5:00PM EST, EXCLUDING HOLIDAYS)

(or)

EMAIL QUESTIONS TO: Tech@BobsSpaceRacers.com

(or)

VISIT THE "CUSTOMER SUPPORT" SECTION ON OUR WEBSITE:
WWW.BOBSSPACERACERS.COM